

## REMARKS

### Drawings

The Examiner objected to the drawings under 37 C. F. R. §1.83(a). The Examiner expressed the view that the drawings fail to show

- “a. the first member including a first reducer section in claim 1, lines 4-5.
- b. the first feature as described in claim 1, line 5.
- c. the second member including a first expander section described in claim 1, lines 5-6.
- d. the second feature described in claim 1, line 6.

Claim 1 as amended is presented here with parenthetical reference numbers and references to the application as filed to establish that there can be no doubt about the support in the specification and drawings, as filed, for claim 1:

1. Apparatus (10) for dispensing pulverulent coating material, the apparatus including an opening (in nozzle 12) through which the pulverulent material is discharged and a conduit (14, 16, 22, 38, 46) through which the pulverulent material is transported from a source (32) to the opening (in nozzle 12), the conduit including a seal member (26), a first member (22) including a first reducer section (“Each robot plate powder hose barbed fitting 22 illustratively includes a lumen which is circular in cross-section transverse to the direction of flow of powder therethrough. The diameter of the circular cross-section decreases linearly from a diameter of about .375 inch (about 9.5 mm.) to a diameter of about .319 inch (about 8 mm.) over a length of about 1.06 inches (about 2.7 cm.)”) including a first feature (portion of 24 defined in 22) and a second member (16) including a first expander section (“Each powder hose barbed fitting 16 illustratively includes a lumen which is circular in cross-section. The diameter of the circular cross-section increases linearly from a diameter of about .319 inch (about 8 mm.) to a diameter of about .375 inch (about 9.5 mm.) over a length of about 1.06 inches (about 2.7 cm.)”) including a second feature (portion of 24 defined in 16), the second member (16) being downstream from the first member (24) in the flow of the pulverulent material, the first (portion of 24 defined in 22) and second (portion of 24 defined in 16) features cooperating to define a space (24) for accommodating (“The seal 26 is nested between the two barbed fittings 16, 22. The fittings 16, 22 cooperate to define the groove 24 which accommodates the seal 26”) the seal member (26) between the first reducer section (“Each robot plate powder hose barbed fitting 22 illustratively includes a lumen which is circular in cross-section transverse to the direction of

flow of powder therethrough. The diameter of the circular cross-section decreases linearly from a diameter of about .375 inch (about 9.5 mm.) to a diameter of about .319 inch (about 8 mm.) over a length of about 1.06 inches (about 2.7 cm.)” and the first expander section (“Each powder hose barbed fitting 16 illustratively includes a lumen which is circular in cross-section. The diameter of the circular cross-section increases linearly from a diameter of about .319 inch (about 8 mm.) to a diameter of about .375 inch (about 9.5 mm.) over a length of about 1.06 inches (about 2.7 cm.)”).

The Examiner further indicates that the drawings fail to show

“e. the conduit including a second reducer section including a lumen and a second expander section including a lumen as described in claim 2.”

Claim 2 as it presently stands is presented here with parenthetical reference numbers and references to the application as filed to establish that there can be no doubt about the support in the specification and drawings, as filed, for claim 2:

2. The apparatus (10) of claim 1 wherein the conduit (14, 16, 22, 38, 46) further includes a second reducer section (“A second flow restrictor 38 is coupled between the remote end 40 of powder delivery tube 14 and nozzle 12. Second flow restrictor 38 includes a reducing section 42 and an expanding section 44. Illustratively, the lumen of reducing section 42 is circular in cross-section. Illustratively, the diameter of the lumen of reducing section 42 decreases linearly from a diameter of about .391 inch (about 1 cm.) to a diameter of about .312 inch (about 8 mm.) in a length of about 1 inch (about 2.5 cm.)”), and a second expander section (“A second flow restrictor 38 is coupled between the remote end 40 of powder delivery tube 14 and nozzle 12. Second flow restrictor 38 includes a reducing section 42 and an expanding section 44. \* \* \* Illustratively, the lumen of expanding section 44 is circular in cross-section. Illustratively, the diameter of the lumen of expanding section 44 increases linearly from the about .312 inch (about 8 mm.) diameter to a diameter of about .503 inch (about 1.3 cm.) in a length of about 2.834 inches (about 7.2 cm.)”).

The 37 C. F. R. §1.83 objections to the drawings are in error and must be withdrawn.

#### Claim Rejections - 35 U. S. C § 112

The Examiner rejected claims 1-13 under 35 U. S. C § 112. The Examiner expressed the view that claims 1-13 are indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Examiner expressed the view that “the phrases ‘first member,’ ‘first feature,’ ‘first structural

component,' 'second member,' 'feature,' and 'second structural component,' are not identified in the specification or shown in the drawings. It is unclear as to what the above phrases are referring to throughout the indicated claims." The Examiner further noted that he is "unable to precisely find in the specification or determine from the drawings where the claimed subject matter, referred to above, is specifically described or shown."

From the above analysis of claims 1 and 2, the 35 U. S. C § 112 rejections of claims 1 and 2 are in error and must be withdrawn. As to the remaining claims, claim 3 as it presently stands is presented here with parenthetical reference numbers and references to the application to establish that there can be no doubt about the support in the specification and drawings, as filed, for claim 3:

3. The apparatus (10) of claim 1 wherein the first member (22) is provided in a first structural component (20) and the second member (16) is provided in a second structural component (18) adapted to be selectively coupled ("Robot powder gun rear plate 18 is coupled by a threaded robot plate retaining ring 19 to a robot powder gun adapter plate 20 having a mating passageway provided with two robot plate powder hose barbed fittings 22") to the first structural component (20), the seal member (26) sealing ("Each robot plate powder hose barbed fitting 22 cooperates with a respective powder hose barbed fitting 16 to define a groove 24 for receiving a respective powder hose fitting seal 26") the selective coupling between the first (20) and second (18) structural components.

Claim 4 as it presently stands is presented here with parenthetical reference numbers and references to the application to establish that there can be no doubt about the support in the specification and drawings, as filed, for claim 4:

4. The apparatus (10) of claim 1 wherein the first reducer section ("Each robot plate powder hose barbed fitting 22 illustratively includes a lumen which is circular in cross-section transverse to the direction of flow of powder therethrough. The diameter of the circular cross-section decreases linearly from a diameter of about .375 inch (about 9.5 mm.) to a diameter of about .319 inch (about 8 mm.) over a length of about 1.06 inches (about 2.7 cm.)") includes a first cross-sectional area ("circular in cross-section \* \* \* diameter of about .319 inch (about 8 mm.)") at an outlet end thereof, the first expander section ("Each powder hose barbed fitting 16 illustratively includes a lumen which is circular in cross-section. The diameter of the circular cross-section increases linearly from a diameter of about .319 inch (about 8 mm.) to a diameter of about .375 inch (about 9.5 mm.) over a length of about 1.06 inches (about 2.7 cm.)") includes a second cross-sectional area ("circular in cross-section \* \* \* diameter of about .319 inch (about 8 mm.)") at an inlet end thereof, and the seal member

(26) provides a transition (“The lumen through seal 26 illustratively has a constant inside diameter of about .319 inch (about 8 mm.)”) from the first cross-sectional area (“circular in cross-section \* \* \* diameter of about .319 inch (about 8 mm.)”) to the second cross-sectional area (“circular in cross-section \* \* \* diameter of about .319 inch (about 8 mm.)”).

Claim 5 as it presently stands is presented here with parenthetical reference numbers and references to the application to establish that there can be no doubt about the support in the specification and drawings, as filed, for claim 5:

5. The apparatus (10) of claim 1 wherein the first reducer section (“Each robot plate powder hose barbed fitting 22 illustratively includes a lumen which is circular in cross-section transverse to the direction of flow of powder therethrough. The diameter of the circular cross-section decreases linearly from a diameter of about .375 inch (about 9.5 mm.) to a diameter of about .319 inch (about 8 mm.) over a length of about 1.06 inches (about 2.7 cm.)”) includes a first cross-sectional area (“circular in cross-section \* \* \* diameter of about .375 inch (about 9.5 mm.)”) at an inlet end thereof and a second cross-sectional area (“circular in cross-section \* \* \* diameter of about .319 inch (about 8 mm.)”) at an outlet end thereof, the cross sectional area of the first reducer section decreasing uniformly (“The diameter of the circular cross-section decreases linearly”) from the first cross-sectional area (“circular in cross-section \* \* \* diameter of about .375 inch (about 9.5 mm.)”) to the second cross-sectional area (“circular in cross-section \* \* \* diameter of about .319 inch (about 8 mm.)”).

Claim 6 as it presently stands is presented here with parenthetical reference numbers and references to the application to establish that there can be no doubt about the support in the specification and drawings, as filed, for claim 6:

6. The apparatus (10) of claim 5 wherein the first expander section (“Each powder hose barbed fitting 16 illustratively includes a lumen which is circular in cross-section. The diameter of the circular cross-section increases linearly from a diameter of about .319 inch (about 8 mm.) to a diameter of about .375 inch (about 9.5 mm.) over a length of about 1.06 inches (about 2.7 cm.)”) includes a third cross-sectional area (“circular in cross-section \* \* \* diameter of about .319 inch (about 8 mm.)”) at an inlet end thereof and a fourth cross-sectional area (“circular in cross-section \* \* \* diameter of about .375 inch (about 9.5 mm.)”) at an outlet end thereof, the cross sectional area of the first expander section increasing uniformly (“The diameter of the circular cross-section increases linearly”) from the third cross-sectional area (“circular in cross-section \* \* \* diameter of about .319 inch (about 8 mm.)”) to the fourth cross-sectional area (“circular in cross-section \* \* \* diameter of

about .375 inch (about 9.5 mm.)”).

Claim 7 as it presently stands is presented here with parenthetical reference numbers and references to the application to establish that there can be no doubt about the support in the specification and drawings, as filed, for claim 7:

7. The apparatus (10) of claim 1 wherein the first expander section (“Each powder hose barbed fitting 16 illustratively includes a lumen which is circular in cross-section. The diameter of the circular cross-section increases linearly from a diameter of about .319 inch (about 8 mm.) to a diameter of about .375 inch (about 9.5 mm.) over a length of about 1.06 inches (about 2.7 cm.)”) includes a first cross-sectional area (“circular in cross-section \* \* \* diameter of about .319 inch (about 8 mm.)”) at an inlet end thereof and a second cross-sectional area (“circular in cross-section \* \* \* diameter of about .375 inch (about 9.5 mm.)”) at an outlet end thereof, the cross sectional area of the first expander section increasing uniformly (“The diameter of the circular cross-section increases linearly”) from the first cross-sectional area (“circular in cross-section \* \* \* diameter of about .319 inch (about 8 mm.)”) to the second cross-sectional area (“circular in cross-section \* \* \* diameter of about .375 inch (about 9.5 mm.)”).

Claim 8 as it presently stands is presented here with parenthetical reference numbers and references to the application to establish that there can be no doubt about the support in the specification and drawings, as filed, for claim 8:

8. The apparatus (10) of claim 2 wherein the second reducer section (“A second flow restrictor 38 is coupled between the remote end 40 of powder delivery tube 14 and nozzle 12. Second flow restrictor 38 includes a reducing section 42 and an expanding section 44. Illustratively, the lumen of reducing section 42 is circular in cross-section. Illustratively, the diameter of the lumen of reducing section 42 decreases linearly from a diameter of about .391 inch (about 1 cm.) to a diameter of about .312 inch (about 8 mm.) in a length of about 1 inch (about 2.5 cm.)”) includes a first cross-sectional area (“circular in cross-section \* \* \* diameter of about .391 inch (about 1 cm.)”) at an inlet end thereof and a second cross-sectional area (“circular in cross-section \* \* \* diameter of about .312 inch (about 8 mm.)”) at an outlet end thereof, the cross sectional area of the second reducer section decreasing uniformly (“Illustratively, the diameter of the lumen of reducing section 42 decreases linearly”) from the first cross-sectional area (“circular in cross-section \* \* \* diameter of about .391 inch (about 1 cm.)”) to the second cross-sectional area (“circular in cross-section \* \* \* diameter of about .312 inch (about 8 mm.)”).

Claim 9 as it presently stands is presented here with parenthetical reference

numbers and references to the application to establish that there can be no doubt about the support in the specification and drawings, as filed, for claim 9:

9. The apparatus (10) of claim 8 wherein the second expander section (“A second flow restrictor 38 is coupled between the remote end 40 of powder delivery tube 14 and nozzle 12. Second flow restrictor 38 includes a reducing section 42 and an expanding section 44. \* \* \* Illustratively, the lumen of expanding section 44 is circular in cross-section. Illustratively, the diameter of the lumen of expanding section 44 increases linearly from the about .312 inch (about 8 mm.) diameter to a diameter of about .503 inch (about 1.3 cm.) in a length of about 2.834 inches (about 7.2 cm.)”) includes a third cross-sectional area (“circular in cross-section \* \* \* diameter of \* \* \* about .312 inch (about 8 mm.)”) at an inlet end thereof and a fourth cross-sectional area (“circular in cross-section \* \* \* diameter of about .503 inch (about 1.3 cm.)”) at an outlet end thereof, the cross sectional area of the second expander section increasing uniformly (“Illustratively, the diameter of the lumen of expanding section 44 increases linearly”) from the third cross-sectional area (“circular in cross-section \* \* \* diameter of \* \* \* about .312 inch (about 8 mm.)”) to the fourth cross-sectional area (“circular in cross-section \* \* \* diameter of about .503 inch (about 1.3 cm.)”).

Claim 10 as it presently stands is presented here with parenthetical reference numbers and references to the application to establish that there can be no doubt about the support in the specification and drawings, as filed, for claim 10:

10. The apparatus (10) of claim 2 wherein the second expander section (“A second flow restrictor 38 is coupled between the remote end 40 of powder delivery tube 14 and nozzle 12. Second flow restrictor 38 includes a reducing section 42 and an expanding section 44. \* \* \* Illustratively, the lumen of expanding section 44 is circular in cross-section. Illustratively, the diameter of the lumen of expanding section 44 increases linearly from the about .312 inch (about 8 mm.) diameter to a diameter of about .503 inch (about 1.3 cm.) in a length of about 2.834 inches (about 7.2 cm.)”) includes a first cross-sectional area (“circular in cross-section \* \* \* diameter of \* \* \* about .312 inch (about 8 mm.)”) at an inlet end thereof and a second cross-sectional area (“circular in cross-section \* \* \* diameter of about .503 inch (about 1.3 cm.)”) at an outlet end thereof, the cross-sectional area of the second expander section increasing uniformly (“Illustratively, the diameter of the lumen of expanding section 44 increases linearly”) from the first cross-sectional area (“circular in cross-section \* \* \* diameter of \* \* \* about .312 inch (about 8 mm.)”) to the second cross-sectional area (“circular in cross-section \* \* \* diameter of about .503 inch (about 1.3 cm.)”).

Claim 11 as it presently stands is presented here with parenthetical reference

numbers and references to the application to establish that there can be no doubt about the support in the specification and drawings, as filed, for claim 11:

11. The apparatus (10) of claim 8 wherein the first reducer section (“Each robot plate powder hose barbed fitting 22 illustratively includes a lumen which is circular in cross-section transverse to the direction of flow of powder therethrough. The diameter of the circular cross-section decreases linearly from a diameter of about .375 inch (about 9.5 mm.) to a diameter of about .319 inch (about 8 mm.) over a length of about 1.06 inches (about 2.7 cm.)”) includes a third cross-sectional area (“circular in cross-section \* \* \* diameter of about .375 inch (about 9.5 mm.)”) at an inlet end thereof and a fourth cross-sectional area (“circular in cross-section \* \* \* diameter of about .319 inch (about 8 mm.)”) at an outlet end thereof, the cross-sectional area of the first reducer section decreasing uniformly (“The diameter of the circular cross-section decreases linearly”) from the third cross-sectional area (“circular in cross-section \* \* \* diameter of about .375 inch (about 9.5 mm.)”) to the fourth cross-sectional area (“circular in cross-section \* \* \* diameter of about .319 inch (about 8 mm.)”).

Claim 12 as it presently stands is presented here with parenthetical reference numbers and references to the application to establish that there can be no doubt about the support in the specification and drawings, as filed, for claim 12:

12. The apparatus (10) of claim 11 wherein the second expander section (“A second flow restrictor 38 is coupled between the remote end 40 of powder delivery tube 14 and nozzle 12. Second flow restrictor 38 includes a reducing section 42 and an expanding section 44. \* \* \* Illustratively, the lumen of expanding section 44 is circular in cross-section. Illustratively, the diameter of the lumen of expanding section 44 increases linearly from the about .312 inch (about 8 mm.) diameter to a diameter of about .503 inch (about 1.3 cm.) in a length of about 2.834 inches (about 7.2 cm.)”) includes a fifth cross-sectional area (“circular in cross-section \* \* \* diameter of \* \* \* about .312 inch (about 8 mm.)”) at an inlet end thereof and a sixth cross-sectional area (“circular in cross-section \* \* \* diameter of about .503 inch (about 1.3 cm.)”) at an outlet end thereof, the cross-sectional area of the second expander section increasing uniformly (“Illustratively, the diameter of the lumen of expanding section 44 increases linearly”) from the fifth cross-sectional area (“circular in cross-section \* \* \* diameter of \* \* \* about .312 inch (about 8 mm.)”) to the sixth cross-sectional area (“circular in cross-section \* \* \* diameter of about .503 inch (about 1.3 cm.)”).

Claim 13 as it presently stands is presented here with parenthetical reference numbers and references to the application to establish that there can be no doubt about the support in the specification and drawings, as filed, for claim 13:

13. The apparatus (10) of claim 12 wherein the first expander section (“Each powder hose barbed fitting 16 illustratively includes a lumen which is circular in cross-section. The diameter of the circular cross-section increases linearly from a diameter of about .319 inch (about 8 mm.) to a diameter of about .375 inch (about 9.5 mm.) over a length of about 1.06 inches (about 2.7 cm.)”) includes a seventh cross-sectional area at an inlet end thereof (“circular in cross-section \* \* \* diameter of about .319 inch (about 8 mm.)”) and an eighth cross-sectional area (“circular in cross-section \* \* \* diameter of about .375 inch (about 9.5 mm.)”) at an outlet end thereof, the cross-sectional area of the first expander section increasing uniformly (“The diameter of the circular cross-section increases linearly”) from the seventh cross-sectional area (“circular in cross-section \* \* \* diameter of about .319 inch (about 8 mm.)”) to the eighth cross-sectional area (“circular in cross-section \* \* \* diameter of about .375 inch (about 9.5 mm.)”).

The 35 U. S. C § 112 rejections of claims 1-13 are in error and must be withdrawn.

#### Claim Rejections - 35 U. S. C § 102

The Examiner rejected claims 1, 3-7, 11 and 13 under 35 U. S. C. § 102. The Examiner relied upon Hollstein U. S. Patent 6,105,886 (hereinafter Hollstein) to support this rejection.

In Hollstein, an upstream end of a hose 49 is connected to a fitting 50 and a downstream end of the hose 49 is connected to a nonrotating tube member 48. In Hollstein the fitting 50 is upstream from the nonrotating tube member 48. Claim 1 has been amended to recite that “the second member [including the first expander section is] downstream from the first member [including the first reducer section] in the flow of the pulverulent material.” This specifically recited structure is opposite that illustrated by Hollstein, and is neither disclosed nor suggested by Hollstein. Therefore claim 1 of the present invention distinguishes patentably from Hollstein.

Applicants submit that since independent claim 1 distinguishes patentably from Hollstein, dependent claims 3-7, 11 and 13, which depend directly or indirectly from claim 1, patentably distinguish from Hollstein as well. Accordingly, Applicants submit that the 35 U. S. C. § 102 rejection of claims 1, 3-7, 11 and 13 is overcome. Further favorable consideration, culminating in allowance of claims 1, 3-7, 11 and 13 is respectfully requested.



### 35 U. S. C. § 103 Rejection

The Examiner rejected claims 2, 8-10, 12, 14 and 24-26 under 35 U. S. C. § 103. The Examiner relied upon the combination of Hollstein and LeCompte U. S. Patent 5,704,825 (hereinafter LeCompte) to support this rejection. With respect to claims 2, 8-10 and 12, the Examiner reiterates his belief that Hollstein “shows all aspects of the applicant’s (sic) invention as set forth in claim 1, but does not show the conduit (47, 48, 49, 50) further including a second reducer section including a lumen and a second expander section including a lumen.” With respect to claims 14 and 24-26, the Examiner reiterates his belief that Hollstein shows the claimed arrangement, “but does not show a second reducer section and a second expander section.” In each case, the Examiner opines that it would have been obvious to one of ordinary skill in the art at the time of the invention to “substitute the reducer and expander sections of LeCompte for the outlet device (47) of Hollstein” to “give Hollstein et al’s invention a second reducer and second expander section.” The Examiner provides no reasoning why this would be a good idea, or why anyone would be motivated to do it, other than to “give Hollstein et al’s invention a second reducer and second expander section.” Certainly, neither Hollstein nor LeCompte suggests this, since each of Hollstein and LeCompte touts *his own* disclosed arrangement as providing an even discharge of pulverulent material. Applicants can only conclude that the motivation to combine Hollstein and LeCompte in the manner the Examiner has suggested comes from Applicants’ claims.

When patentability turns on the question of obviousness, the search for and analysis of the prior art includes evidence relevant to the finding of whether there is a teaching, motivation, or suggestion to select and combine the references relied on as evidence of obviousness. See, e.g., McGinley v. Franklin Sports, Inc., 262 F.3d 1339, 1351-52, 60 USPQ2d 1001, 1008 (Fed. Cir. 2001) (“the central question is whether there is reason to combine [the] references,” a question of fact drawing on the Graham factors).

“The factual inquiry whether to combine references must be thorough and searching.” Id. It must be based on objective evidence of record. This precedent has been reinforced in myriad decisions, and cannot be dispensed with. See, e.g., Brown & Williamson Tobacco Corp. v. Philip Morris Inc., 229 F.3d 1120, 1124-25, 56 USPQ2d 1456, 1459 (Fed. Cir. 2000) (“a showing of a suggestion, teaching, or motivation to combine the prior art references is an ‘essential component of an obviousness holding’”) (quoting C.R. Bard, Inc., v. M3 Systems, Inc., 157 F.3d 1340, 1352, 48 USPQ2d 1225, 1232 (Fed. Cir. 1998)); In re Dembiczak, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999) (“Our case law makes clear that the best defense against the subtle but powerful

attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references.”); In re Dance, 160 F.3d 1339, 1343, 48 USPQ2d 1635, 1637 (Fed. Cir. 1998) (there must be some motivation, suggestion, or teaching of the desirability of making the specific combination that was made by the applicant); In re Fine, 837 F.2d 1071, 1075, 5 USPQ2d 1596, 1600 (Fed. Cir. 1988) (“teachings of references can be combined only if there is some suggestion or incentive to do so.”) (emphasis in original) (quoting ACS Hosp. Sys., Inc. v. Montefiore Hosp., 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984)).

The need for specificity pervades this authority. See, e.g., In re Kotzab, 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000) (“particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed”); In re Rouffet, 149 F.3d 1350, 1359, 47 USPQ2d 1453, 1459 (Fed. Cir. 1998) (“even when the level of skill in the art is high, the Board must identify specifically the principle, known to one of ordinary skill, that suggests the claimed combination. In other words, the Board must explain the reasons one of ordinary skill in the art would have been motivated to select the references and to combine them to render the claimed invention obvious.”); In re Fritch, 972 F.2d 1260, 1265, 23 USPQ2d 1780, 1783 (Fed. Cir. 1992) (the examiner can satisfy the burden of showing obviousness of the combination “only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references”).

With respect to Lee's application, neither the examiner nor the Board adequately supported the selection and combination of the Nortrup and Thunderchopper references to render obvious that which Lee described. The examiner's conclusory statements that “the demonstration mode is just a programmable feature which can be used in many different device[s] for providing automatic introduction by adding the proper programming software” and that “another motivation would be that the automatic demonstration mode is user friendly and it functions as a tutorial” do not adequately address the issue of motivation to combine. This factual question of motivation is material to patentability, and could not be resolved on subjective belief and unknown authority. It is improper, in determining whether a person of ordinary skill would have been led to this combination of references, simply to “[use] that which the inventor taught against its teacher.” W.L. Gore v. Garlock, Inc., 721 F.2d 1540, 1553, 220 USPQ 303, 312-13 (Fed. Cir. 1983). Thus the Board must not only

assure that the requisite findings are made, based on evidence of record, but must also explain the reasoning by which the findings are deemed to support the agency's conclusion.

Deferential judicial review under the Administrative Procedure Act does not relieve the agency of its obligation to develop an evidentiary basis for its findings. To the contrary, the Administrative Procedure Act reinforces this obligation. See, e.g., Motor Vehicle Manufacturers Ass'n v. State Farm Mutual Automobile Ins. Co., 463 U.S. 29, 43 (1983) (“the agency must examine the relevant data and articulate a satisfactory explanation for its action including a ‘rational connection between the facts found and the choice made.’”) (quoting Burlington Truck Lines v. United States, 371 U.S. 156, 168 (1962)); Securities & Exchange Comm’n v. Chenery Corp., 318 U.S. 80, 94 (1943) (“The orderly function of the process of review requires that the grounds upon which the administrative agency acted are clearly disclosed and adequately sustained.”).

In its decision on Lee's patent application, the Board rejected the need for “any specific hint or suggestion in a particular reference” to support the combination of the Nortrup and Thunderchopper references. Omission of a relevant factor required by precedent is both legal error and arbitrary agency action. See Motor Vehicle Manufacturers, 463 U.S. at 43 (“an agency rule would be arbitrary and capricious if the agency . . . entirely failed to consider an important aspect of the problem”); Mullins v. Department of Energy, 50 F.3d 990, 992 (Fed. Cir. 1995) (“It is well established that agencies have a duty to provide reviewing courts with a sufficient explanation for their decisions so that those decisions may be judged against the relevant statutory standards, and that failure to provide such an explanation is grounds for striking down the action.”). As discussed in National Labor Relations Bd. v. Ashkenazy Property Mgt. Corp., 817 F.2d 74, 75 (9th Cir. 1987), an agency is “not free to refuse to follow circuit precedent.”

The foundation of the principle of judicial deference to the rulings of agency tribunals is that the tribunal has specialized knowledge and expertise, such that when reasoned findings are made, a reviewing court may confidently defer to the agency's application of its knowledge in its area of expertise. Reasoned findings are critical to the performance of agency functions and judicial reliance on agency competence. See Baltimore and Ohio R. R. Co. v. Aberdeen & Rockfish R. R. Co., 393 U.S. 87, 91-92 (1968) (absent reasoned findings based on substantial evidence effective review would become lost “in the haze of so-called expertise”). The “common knowledge and common sense” on which the Board relied in rejecting Lee's application are not the specialized knowledge and expertise contemplated by the Administrative Procedure

Act. Conclusory statements such as those here provided do not fulfill the agency's obligation. This court explained in Zurko, 258 F.3d at 1385, 59 USPQ2d at 1697, that “deficiencies of the cited references cannot be remedied by the Board's general conclusions about what is 'basic knowledge' or 'common sense.’” The Board's findings must extend to all material facts and must be documented on the record, lest the “haze of so-called expertise” acquire insulation from accountability. “Common knowledge and common sense,” even if assumed to derive from the agency's expertise, do not substitute for authority when the law requires authority. See Allentown Mack, 522 U.S. at 376 (“Because reasoned decisionmaking demands it, and because the systemic consequences of any other approach are unacceptable, the Board must be required to apply in fact the clearly understood legal standards that it enunciates in principle . . . .”)

The case on which the Board relies for its departure from precedent, In re Bozek, 416 F.2d 1385, 163 USPQ 545 (CCPA 1969), indeed mentions “common knowledge and common sense,” the CCPA stating that the phrase was used by the Solicitor to support the Board's conclusion of obviousness based on evidence in the prior art. Bozek did not hold that common knowledge and common sense are a substitute for evidence, but only that they may be applied to analysis of the evidence. Bozek did not hold that objective analysis, proper authority, and reasoned findings can be omitted from Board decisions. Nor does Bozek, after thirty-two years of isolation, outweigh the dozens of rulings of the Federal Circuit and the Court of Customs and Patent Appeals that determination of patentability must be based on evidence. This court has remarked, in Smiths Industries Medical Systems, Inc. v. Vital Signs, Inc., 183 F.3d 1347, 1356, 51 USPQ2d 1415, 1421 (Fed. Cir. 1999), that Bozek's reference to common knowledge “does not in and of itself make it so” absent evidence of such knowledge.

In re Lee, 61 U. S. P. Q. 2d 1430, 1433-1435, (Fed. Cir. Jan. 18, 2002).

Under Lee, in order to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See M.P.E.P. Section 2143 - Section 2143.03 for decisions

pertinent to each of these criteria. M.P.E.P. § 2142.

[V]irtually all [inventions] are combinations of old elements.” *Environmental Designs, Ltd. v. Union Oil Co.*, 713 F.2d 693, 698, 218 U.S.P.Q. 865, 870 (Fed. Cir. 1983); *see also Richdel, Inc. v. Sunspool Corp.*, 714 F.2d 1573, 1579-80, 219 U.S.P.Q. 8, 12 (Fed.Cir.1983) (“Most, if not all, inventions are combinations and mostly of old elements.”). An examiner may often find every element of a claimed invention in the prior art. If identification of each claimed element in the prior art were sufficient to negate patentability, very few patents would ever issue. Furthermore, rejecting patents solely by finding prior art corollaries for the claimed elements would permit an examiner to use the claimed invention itself as a blueprint for piecing together elements in the prior art to defeat the patentability of the claimed invention. Such an approach would be “an illogical and inappropriate process by which to determine patentability.

In re Rouffet, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457-58 (Fed. Cir. 1998), citing Sensonics, Inc. v. Aerosonic Corp., 81 F.3d 1566, 1570, 38 USPQ.2d 1551, 1554 (Fed. Cir. 1996).

Neither LeCompte nor Hollstein discloses or suggests the desirability of combining the elements from the two references. Examiner presented no findings, nor did the Examiner explain any reason, that a skilled artisan, without knowledge of the present invention, would have selected the references and combined them as the Examiner claimed. It appears that the only suggestion to combine the references is the present invention. It is reasonable to infer that the Examiner selected these references with the assistance of hindsight based on Applicants’ claims. Courts forbid the use of hindsight in the selection of references that comprise the case of obviousness. In re Rouffet, 149 F.3d at 1358. See In re Gorman, 933 F.2d 982, 986, 18 U.S.P.Q.2d 1885, 1888 (Fed. Cir. 1991). Lacking a motivation to combine references, the Examiner did not establish a *prima facie* case of obviousness.

Without providing any motivation to combine the references, without any finding of reasonable expectation of success, and without proving the references taught all the claim limitations, again the Examiner has not made a *prima facie* case of 35 U. S. C. § 103 obviousness.

Accordingly, Applicants submit that the 35 U. S. C. § 103 rejection of claims 2, 8-10, 12, 14 and 24-26 is overcome. Favorable consideration, culminating in allowance of claims 2, 8-10, 12, 14 and 24-26, is respectfully requested.

The Commissioner is hereby authorized to charge any fees which may be due

to constitute this a timely response to the April 20, 2006 official action to Applicants' undersigned counsel's deposit account 10-0435 with reference to file number 3030-72219. A duplicate copy of this authorization is enclosed for that purpose.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Richard D. Conard", written in a cursive style.

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